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Attorney Docket No. 46342/55862

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Watanabe, et al.

Serial No.: 09/831,758

Filed: May 11, 2001

For: NOVEL G PROTEIN-COUPLED RECEPTOR PROTEIN, ITS DNA AND  
LIGAND THEREOF

Group Art Unit: 1646

Examiner: J. Ulm

Commissioner for Patents  
Washington, D.C. 20231

**CERTIFICATE OF MAILING**

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on February 24, 2003.

By: Kathryn A. Piffat, Ph.D.  
Kathryn A. Piffat, Ph.D.

Dear Sir/Madam:

Transmitted herewith for filing in the above-referenced patent application are the following documents:

1. Response to Restriction Requirement (4 pages);
2. Supplemental Preliminary Amendment (6 pages);
3. Copy of Office Action (Restriction Requirement) (10 pages);
4. This Transmittal Letter (1 page) (x2); and
5. Return Postcard.

February 24, 2003

Customer No.: 21,874

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,758	05/11/2001	Takuya Watanabe	55862	1000

7590

01/23/2003

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EXAMINER

ULM, JOHN D

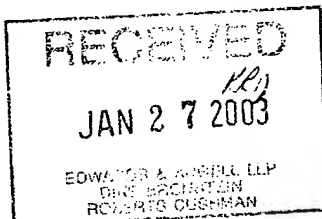
ART UNIT

PAPER NUMBER

1646

DATE MAILED: 01/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

*Restriction*

Edwards &amp; Angell LLP

Dike, Bronstein, Roberts &amp; Cushman

101 Federal St. Boston, MA 02110

Date Rec'd 1/27/03Docketed For Feb 23 - Jun 23, 2003By KRJApproved [Signature] 1/27/03

**Office Action Summary**

Application No.  
**09/831,758**

Applicant(s)  
**Watanabe et al.**

Examiner  
**John Ulm**

Art Unit  
**1646**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of the communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**MAR 05 2003**

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

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**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 16, 18, 22-27, 35, and 38-44 is/are objected to.
- 8) ☒ Claims 1-15, 17-21, 28-34, 36, and 37 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_      6) ☐ Other:

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1) Claims 1 to 44 are pending in the instant application.

2) Claims 16, 18, 22 to 27, 35, and 38 to 44 are objected to under 37 CFR 1.75© as being in improper form because a multiple dependent claim can not depend from another multiple dependant claim and must depend from other claims in the alternative only. See MPEP § 608.01(n). Accordingly, these claims have not been further treated on the merits.

3) Claims 2, 9, 29, 32 and 37 are objected to as reciting an improper Markush Group. M.P.E.P. 803.02 states that:

“Since the decisions in *In re Weber* \*\*, 198 USPQ 328 (CCPA 1978); and *In re Haas*, 198 USPQ 334 (CCPA 1978), it is improper for the Office to refuse to examine that which applicants regard as their invention, unless the subject matter in a claim lacks unity of invention, *In re Harnish*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); *Ex Parte Hozumi*, 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984). Broadly, unity of invention exists where compounds included within a Markush group (1) share a common utility and (2) share a substantial structural feature disclosed as being essential to that utility.”

The different sequences recited in these claims lack a common disclosed utility which is based upon a shared structural feature lacking from the prior art.

4) Claims 3 to 15, 17, 19, 30 to 34, 36 and 37 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. A properly dependant claim can not conceivably be infringed without infringing any of the claims from which it depends. See M.P.E.P. 608.01(n)III.

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- 5) Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1 to 7, 20 and 21, in so far as they are drawn to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:1, and fragments thereof, classified in class 530, subclass 350.
  - II. Claims 1 to 7, 20 and 21, in so far as they are drawn to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:8, and fragments thereof, classified in class 530, subclass 350.
  - III. Claims 1 to 7, 20 and 21, in so far as they are drawn to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:14, and fragments thereof, classified in class 530, subclass 350.
  - IV. Claims 1 to 7, 20 and 21, in so far as they are drawn to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:18, and fragments thereof, classified in class 530, subclass 350.
  - V. Claims 1 to 7, 20 and 21, in so far as they are drawn to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:33, and fragments thereof, classified in class 530, subclass 350.
  - VI. Claims 1 to 7, 20 and 21, in so far as they are drawn to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:50, and fragments thereof, classified in class 530, subclass 350.

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- VII. Claims 8 to 15, in so far as they are drawn to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:1, and fragments thereof, classified in class 536, subclass 23.5.
- VIII. Claims 8 to 15, in so far as they are drawn to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:8, and fragments thereof, classified in class 536, subclass 23.5.
- IX. Claims 8 to 15, in so far as they are drawn to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:14, and fragments thereof, classified in class 536, subclass 23.5.
- X. Claims 8 to 15, in so far as they are drawn to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:18, and fragments thereof, classified in class 536, subclass 23.5.
- XI. Claims 8 to 15, in so far as they are drawn to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:33, and fragments thereof, classified in class 536, subclass 23.5.
- XII. Claims 8 to 15, in so far as they are drawn to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:50, and fragments thereof, classified in class 536, subclass 23.5.

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- XIII. Claim 16, in so far as it is drawn to an antibody which binds to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:1, and fragments thereof, classified in class 530, subclass 388.22.
- XIV. Claim 16, in so far as it is drawn to an antibody which binds to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:8, and fragments thereof, classified in class 530, subclass 388.22.
- XV. Claim 16, in so far as it is drawn to an antibody which binds to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:14, and fragments thereof, classified in class 530, subclass 388.22.
- XVI. Claim 16, in so far as it is drawn to an antibody which binds to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:18, and fragments thereof, classified in class 530, subclass 388.22.
- XVII. Claim 16, in so far as it is drawn to an antibody which binds to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:33, and fragments thereof, classified in class 530, subclass 388.22.
- XVIII. Claim 16, in so far as it is drawn to an antibody which binds to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:50, and fragments thereof, classified in class 530, subclass 388.22.

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- XIX. Claim 19, in so far as it is drawn to an antisense DNA which is complementary to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:1, and fragments thereof, classified in class 536, subclass 24.5.
- XX. Claim 19, in so far as it is drawn to an antisense DNA which is complementary to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:8, and fragments thereof, classified in class 536, subclass 24.5.
- XXI. Claim 19, in so far as it is drawn to an antisense DNA which is complementary to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:14, and fragments thereof, classified in class 536, subclass 24.5.
- XXII. Claim 19, in so far as it is drawn to an antisense DNA which is complementary to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:18, and fragments thereof, classified in class 536, subclass 24.5.
- XXIII. Claim 19, in so far as it is drawn to an antisense DNA which is complementary to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:33, and fragments thereof, classified in class 536, subclass 24.5.
- XXIV. Claim 19, in so far as it is drawn to an antisense DNA which is complementary to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:50, and fragments thereof, classified in class 536, subclass 24.5.



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- XXV. Claims 28 to 30, in so far as they are drawn to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:37, and fragments thereof, classified in class 530, subclass 350.
- XXVI. Claims 28 to 30, in so far as they are drawn to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:54, and fragments thereof, classified in class 530, subclass 350.
- XXVII. Claims 31 to 34 and 37, in so far as they are drawn to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:37, and fragments thereof, classified in class 536, subclass 23.5.
- XXVIII. Claims 31 to 34 and 37, in so far as they are drawn to a DNA encoding a polypeptide comprising the amino acid sequence presented in SEQ ID NO:54, and fragments thereof, classified in class 536, subclass 23.5.
- XXIX. Claims 36 and 37, in so far as they are drawn to an antibody which binds to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:37, and fragments thereof, classified in class 530, subclass 388.22.
- XXX. Claims 36 and 37, in so far as they are drawn to an antibody which binds to a polypeptide comprising the amino acid sequence presented in SEQ ID NO:54, and fragments thereof, classified in class 530, subclass 388.22.

The inventions are distinct, each from the other because:

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Inventions I to XXX relate to thirty different chemical compounds each of which can be made and used without the others. These thirty different chemical compounds lack unity of invention because they do not share a common utility which is based upon a single special technical feature lacking from the prior art.

Because these inventions are distinct for the reasons given above and the search required for each of these Groups would not be required for any other Group, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

6) Further, claims 3 to 7, 10 to 15, 17 to 21, 30 to 34, 36 and 37 are generic to a plurality of disclosed patentably distinct species of "partial peptide" as articulated, for example, in claims 4 to 6 and 32. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species of partial peptide, even though this requirement is traversed.

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Applicant is advised that a reply to this requirement must include an identification of the species of partial peptide that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

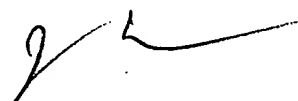
Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Ulm whose telephone number is (703) 308-4008. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached at (703) 308-6564.

Official papers filed by fax should be directed to (703) 308-4242 or (703) 872-9306. Official responses under 37 C.F.R. § 1.116 should be directed to (703) 872-9307.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.



JOHN ULM  
PRIMARY EXAMINER  
GROUP 1800